Feb. 6, 2004

Paul Yeung, Review Engineer
Bureau of Air Management
Wisconsin Department of Natural Resources
Central Office, 1010 S. Webster
P.O. Box 7921
Madison, WI 53707-7921

Dear Mr. Yeung:

In 2000 and 2001, I participated in planning a Kipp neighborhood health study along with the environmental epidemiologist for the Madison Department of Public Health, several community members, several DNR officials, and several Kipp representatives. Mayor Sue Baumann ordered the Health Department to do the health study due to the substantial number of health complaints in the neighborhood over the last decade or so.

The health study group began meeting in the summer of 2000. About 9 months or so into the process, the planned study was abruptly abandoned. In June of 2001, shortly after the study was abandoned, the Madison Department of Public Health issued the "Evaluation of Community Exposure to Emissions from Madison Kipp Corporation" which attempted to explain the reasons for abandoning the health study.

The "Evaluation of Community Exposure" document focuses on several Kipp emissions of concern, including chlorine and hydrogen chloride, nitrogen oxides, sulfur dioxide, carbon monoxide, particulate matter, organic chemicals, and odors. Overall, the report concludes, for all of these emissions, that "measured and/or modeled ambient air concentrations are at levels considered safe." Yet, at the same time, the report states in several places that for many of these contaminants, data are old and do not fully characterize variations in ambient levels. More importantly, the report also repeatedly states that significant data gaps exist for all of these contaminants—gaps that are largely due to lack of monitoring and unknowns about emissions (such as the ingredients in the lubricants used in the die casting process, the day to day fluxes in ambient HCL and CL_2 levels, and levels of the smaller size fractions of particulate matter).

More pertinent to today's hearing, the report stresses that "additional ambient air testing should be considered to ensure that ambient air concentrations of these chemicals have not changed" (MDPH Community Health Report, pg. 5). There is now ample evidence that many of Kipp's emissions *have* increased considerably and/or will increase with the new permit. For

example, the current permit is asking for an increase in total suspended particulate emissions from 3.0 pounds to 17 pounds per hour and an increase in aluminum salt emissions from 1.3 to 4 pounds per hour. Clearly, particulate matter and aluminum salt emissions are increasing dramatically at Kipp.

Other emissions are increasing as well. For example, hydrogen chloride and chlorine levels have increased considerably since the 1995 levels used for the health study report. The report notes that in 1995, 1.02 pounds of CL_2 and 3.97 pounds of HCL were released per hour from the stack. The latest stack test results, done in November of 2003, show that one of the Kipp furnaces is emitting 2.1pounds per hour of CL_2 and 12.7 pounds per hour of HCL. This means that CL_2 emissions have doubled and HCL emissions have more than doubled for one Kipp furnace alone since 1995.

Moreover, the 2001 report states that "Madison Kipp disagrees with the conclusion of community members" that dioxin is probably being emitted from Kipp because of their use of chlorine and organic matter in their furnaces. We now know that community members were correct in speculating that dioxin would result from Kipp processes. The most recent stack test results from Kipp show that Kipp is emitting several dioxin congeners from at least one of their furnaces. Although I do not know whether or not these dioxin congener levels are of concern, I do know that dioxins are highly toxic compounds at extremely low levels—particularly to developing fetuses and children. Before issuing any new permits to Kipp to increase current emissions, the DNR and the Madison Health Department should investigate the potential health risks related to Kipp's dioxin emissions.

Finally, the report admits that people in the Kipp neighborhood are exposed to complex mixtures of Kipp emissions, rather than one chemical a time. The report concludes that "many of Madison Kipp's emissions, specifically chlorine, hydrogen chloride, sulfur dioxide, nitrogen oxides, and particulate matter, are potential respiratory irritants and ***may act in combination*** to cause respiratory illness or irritation after inhalation of sufficient concentrations" (MDPH Community Health Report, pg. 13). Consequently, in addition to more accurately assessing each of these types of emissions, the report concludes that to accurately assess real chemical exposures in the neighborhood, the *mixtures* of these compounds actually in the air people breathe must be analyzed.

The Madison Health Department report concludes as follows: "While much is known about Madison Kipp emissions, this report also identifies several areas in which **data is**

insufficient to answer the community's questions about Madison Kipp's emissions. To summarize, the knowledge gaps identified in this report are (listed exactly as in the report):

1. What is the variation in chlorine and hydrogen chloride levels in ambient air?
2. Have chlorine and hydrogen chloride levels in ambient air changed since 1994?
3. What are the long-term (daily and yearly) ambient air concentrations of Cl2 and HCL and how does this compare with EPA's reference concentration?
4. How much of the measured particulate matter consists of PM2.5 and PM10?
5. Have Madison Kipp's volatile organic compound emissions been completely characterized?
6. What is the chemical composition of the "waxy/oily/burnt" chemical odor released from Madison Kipp?
7. What is the expected ambient air concentration of SO2, NOx, PM2.5, and PM10 under normal operating conditions?" (MDPH Community Health Report, pg. 16)

I ask that the questions posed by the City Health Department **3 years ago** be addressed before we give Kipp a permit to increase emissions. I would also add a few additional questions to this list:

1. What are the health implications of the dioxin congeners being emitted from Madison Kipp Corporation? How will these levels change with increasing emissions of other compounds?
2. What are the ingredients in the lubricants used in the die casting process? What are their health implications? What are the current emission levels of these chemicals?

In conclusion, in agreement with other concerned citizens in the community, I argue that air modeling and monitoring of Kipp's emissions by the DNR need to be substantially improved to assure that the community is not being exposed to unnecessary health risks. Important questions about people's exposures to toxic chemicals and long-term health risks related to these exposures *cannot* be addressed without this data.

Last but not least, I want to stress that existing data gaps should not be used as an excuse to do nothing. Emission levels of several Kipp contaminants are clearly going up. We may be able to say that they are at safe levels now, but if emissions continue to increase, it is inevitable that at some future point, they will *not* be at safe levels. Therefore, while doing everything possible to fill these data gaps, the DNR should take active steps to reduce current emissions and

to prevent future increases in Kipp emissions. This is, as I understand it, an important part of their job.

Thank you very much for hearing my concerns.

Sincerely,

Maria Powell
2329 Willard Ave.
Madison, Wisconsin 53704
(608) 240-1485, powell@wisc.edu

Reference: *Evaluation of Community Exposure to Emissions from Madison Kipp Corporation.* Prepared by John Hausbeck, Environmental Epidemiologist, Madison Department of Public Health, June 20, 2001.